CHAPTER 10

LIST OF EFFECTIVE TEMPORARY REVISIONS

FOLLOWING IS A COMPLETE LISTING OF ALL ACTIVE TEMPORARY REVISIONS (TR'S). TR'S NOT LISTED SHOULD BE REMOVED. THE ATA NUMBER, CONFIG CODE AND PAGE NUMBER IDENTIFIES THE PAGE PRECEDING THE TR.

TR NUMBER	ATA NUMBER	CONFIG CODE	PAGE NUMBER	TR DATE

NONE

CHAPTER 10

PARKING AND MOORING

LIST OF EFFECTIVE PAGES

	CHAPTER/ SECTION	PAGE	DATE	CONFIG CODE
	List of Effective Pages	1/2	Jun 15/96	
	Table of Contents	1/2	Dec 15/94	
	10-00-00	1/2	May 15/74	
	10-10-00	1/2	Dec 1/72	
	10-10-00	201	Nov 15/83	
R	10-10-00	202	Jun 15/96	
R	10-10-00	203	Jun 15/96	
R	10-10-00	204	Jun 15/96	
	10-10-00	205	May 15/82	
	10-10-00	206	Feb 15/76	
	10-10-00	207	Feb 15/76	
	10-10-00	208	Feb 15/76	
	10-10-00	209	Feb 15/76	
	10-10-00	210	Jul 15/84	
	10-10-00	211	Jul 15/84	
	10-10-00	212	Dec 15/95	
	10-10-00	213	Dec 15/95	
	10-10-00	214	Dec 15/95	
	10-10-00	215	Dec 15/95	
	10-10-00	216	Dec 15/95	
	10-10-00	217	Dec 15/95	
	10-10-00	218	Dec 15/95	
	10-10-00	219	Dec 15/95	
	10-10-00	220	Dec 15/95	
	10-10-00	221	Dec 15/95	
	10-10-00	222	Dec 15/95	
	10-10-00	223	Dec 15/95	
	10-10-00	224	Dec 15/95	
	10-10-00	225	Dec 15/95	
	10-10-00	226	Dec 15/95	
	10-10-00	227	Dec 15/95	
	10-10-00	228	Dec 15/95	
	10-10-00	229	Dec 15/95	
	10-10-00	230	Dec 15/95	
R	10-10-00	231	Jun 15/96	
R	10-10-00	232	Jun 15/96	
R	10-10-00	233	Jun 15/96	
	10-10-00	234	Dec 15/92	
R	10-10-00	235/236	Jun 15/96	
	10-20-00	1	Jul 15/83	
	10-20-00	2	Jul 15/83	
	10-20-00	201	May 15/89	
	10-20-00	202	Dec 15/92	
	10-20-00	203	Dec 15/92	
	10-20-00	204	Dec 15/92	
	10-20-00	205	Dec 15/92	
	10-20-00	206	May 15/89	
	10-20-00	207/208	May 15/89	

CHAPTER 10

PARKING AND MOORING

TABLE OF CONTENTS

	Subject	Chapter Section Subject	Page	Effectivity
	PARKING AND MOORING	10-00-00		
R	Description and Operation		1	ALL
	PARKING	10-10-00		
R	Description and Operation		1	ALL
R	Maintenance Practices		201	ALL
	MOORING	10-20-00		
R	Description and Operation		1	ALL
	Maintenance Practices		201	ALL

PARKING AND MOORING - DESCRIPTION AND OPERATION

1. General

Aircraft parking procedures for normal maintenance or ramp functions are similar to or the same as other aircraft equipped with a tricycle landing gear. The aircraft is normally parked on a cement apron or other hard surfaces and can be secured by using wheel chocks or parking brakes. In normal weather conditions, the airplane should be parked with wheel chocks only. For long-term parking, further protective measures should be taken (Ref. 10-10-00, Page 202).

Aircraft mooring is not required because aircraft weight and design will withstand normal ground wind forces from any angle without tie-downs. However, as a precaution against extreme weather conditions, mooring procedures as contained in this chapter should be followed.

PARKING - DESCRIPTION AND OPERATION

1. General

R Under normal weather conditions the L-1011 TRISTAR may be parked
R in a direction that will best facilitate servicing without
R regard to prevailing winds.

R For long-term parking or storage, all windows and doors should
R be closed and protective covers installed to prevent entry of
R foreign materials.

R For long-term parking or storage during severe cold weather
R conditions, further procedures must be performed to protect the
R airplane.

PARKING - MAINTENANCE PRACTICES

1. Equipment and Materials

Landing Gear Downlock Safety Pins, Dwg No. 1302300, or equivalent

Chocks, MLG Wheels, Brooks & Perkins, Inc., or equivalent

Chock, NLG Wheels, Brooks & Perkins Inc., or equivalent

Wing Engine Inlet Cover, PN B873, no equivalent

Center Engine Inlet Cover, PN BA86, no equivalent

Core Engine Nozzle Cover, PN B904, no equivalent

Wing Engine Exhaust Plugs PN BA94, no equivalent

Center Engine Exhaust Plug, PN BA93, no equivalent

Environmental Control System Flush Static Ports, PN 835706-9, no equivalent

Pitot Static Covers, PN BF76, no equivalent

APU Load Compressor Inlet Duct Cover, PN BF74, no equivalent

R Forward Electronic and Mid Electrical Service Centers Exhaust Covers, local fabrication, or equivalent

Lavatory air exhaust covers, local fabrication

Galley Air Exhaust Cover, local fabrication

APU Vent Outlet Plug, local fabrication

Angle of Attack Sensor Protective Cover, local fabrication

Total Temperature Sensor Protective Cover, local fabrication

VHF No. 1 Antenna Protective Cover, local fabrication

NLG Tire Protective Cover, local fabrication

MLG Tire Protective Cover, local fabrication

Tape, Pressure-sensitive Adhesive, Waterproof, Exterior, FED. SPEC PPP-T-60, or equivalent

Oil, Low Temperature, Lubricating, General Purpose, MIL-L-7870, or equivalent

Corrosion Preventive Compound, MIL-C-16173, or equivalent

Grease, Aircraft and Instrument, Gear, and Actuator Screw, MIL-G-23827, or equivalent

Coating Material, Protective, Lockheed Spec C-37-672, or equivalent

Cleaner, Petroleum Base, Nonphotochemically Active, Lockheed Spec LCM32-1086, or equivalent

Hydraulic Fluid, Lockheed Specification C-34-1224

Hydraulic Fluid, MIL-H-5606, or equivalent.

2. Referenced Procedures

	9-11-00	Towing - Maintenance Practices
	10-20-00	Mooring - Maintenance Practices
	12-11-01	Fuel Quantity Measurement - Replenishing
	12-13-01	Hydraulic Bootstrap Reservoir - Servicing
	12-14-01	Tire Inflation
	12-14-11	Landing Gear Brake Accumulator Charging
	12-14-12	Main Gear Shock Strut - Servicing
	12-14-13	Nose Gear Shock Strut - Servicing
R	12-14-16	Hydraulic Reservoir Auxiliary Pressurization Accumulator Charging
	12-15-11	Waste Disposal System - Servicing
	12-16-01	Windshield Washer Reservoir Replenishing
	12-20-00	Scheduled Servicing - Lubrication
	20-12-01	Application of Corrosion Preventive Materials - LCP78-1128B
	20-51-08	Touchup Requirements For Finishes On L-1011 Aircraft - PB78-463C

22-15-02	Yaw Rate Gyro - Removal and Installation
24-00-00	Electrical Power - Maintenance Practices
24-32-03	Nickel-Cadmium Battery - Removal and Installation
24-41-00	External Power/Ground Service System - Maintenance Practices
24-50-00	Electrical Load Distribution - Description and Operation
25-61-10	Emergency Escape Slides/Rafts - Removal and Installation
28-11-00	Tanks - Maintenance Practices
29-11-00	Hydraulic Power System - Maintenance Practices
29-21-00	Ram Air Turbine System - Maintenance Practices
31-31-07	Underwater Locating Device - Removal and Installation
33-51-03	Emergency Power Pack - Removal and Installation
34-21-04	Vertical Gyro - Removal and Installation
34-21-08	Stand by Horizon Indicator - Removal and Installation
34-22-04	Directional Gyro - Removal and Installation
34-43-03	Inertial Navigation Unit - Removal and Installation
34-43-05	INS Battery Unit - Removal and Installation
38-11-00	Potable Water System - Maintenance Practices
49-21-01	APU Gas Turbine Engine - Servicing
71-00-00	Power Plant - Cleaning, Painting and Preservation
51-10-03	Scratches - Structural Repair Manual

3. Normal Parking Procedures

A. For normal operational parking, proceed as follows:

(1) Install landing gear ground safety lockpins (Ref. Fig. 201).

(2) Install ram air turbine (RAT) ground safety lock (Ref. 29-21-00.

CAUTION: FAILURE TO RELIEVE SCRUBBING LOADS CAUSED BY TURNS PLACES A TWISTING MOMENT IN THE LANDING GEAR SHOCK STRUT WHICH COULD DAMAGE THE STRUT.

(3) Move aircraft into the position designated for parking. Before ending parking maneuver, ensure that aircraft has traveled a straight path for at least 15 feet to relieve scrubbing loads (Ref. 9-11-00).

C (4) Connect static ground cable to the ground terminals on
C the main landing gear truck (Ref. Fig. 202).

(5) Set parking brakes.

(6) Place wheel chocks in front of and behind at least one set of main gear wheels per truck. Tie chocks together if aircraft is to remain parked over 72 hours. Release parking brakes.

(7) Retract flaps to full UP position.

(8) Make certain that the spoilers are fully retracted.

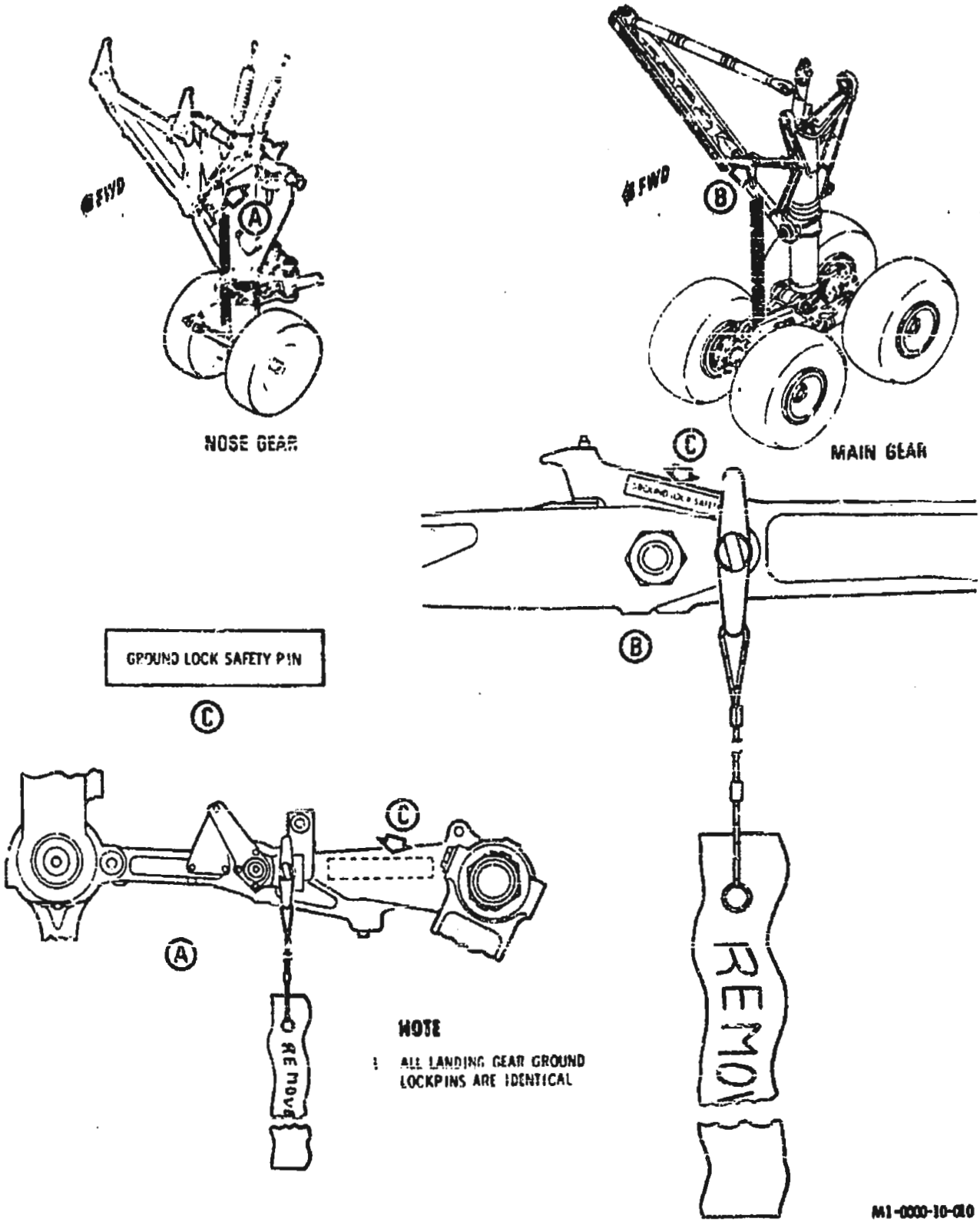
(9) Install protective plugs and covers as determined by weather conditions (Ref. Fig. 203).

(10) Cover the load compressor inlet duct if the APU is not being used for maintenance.

(11) Place matting or other suitable material between the tires and parking surface if the aircraft is to be parked on ice or packed snow.

NOTE: Under normal weather conditions, the aircraft may be parked and headed in a direction that will best facilitate servicing without regard to the prevailing wind. Control surface servo internal dampening makes gust lock usage unnecessary.

(12) Turn off all electrical power (Ref. 24-00-00) if not required for maintenance. If power is required for lights, service outlets, door operation, and fueling, select ground service mode (Ref. 24-41-00).

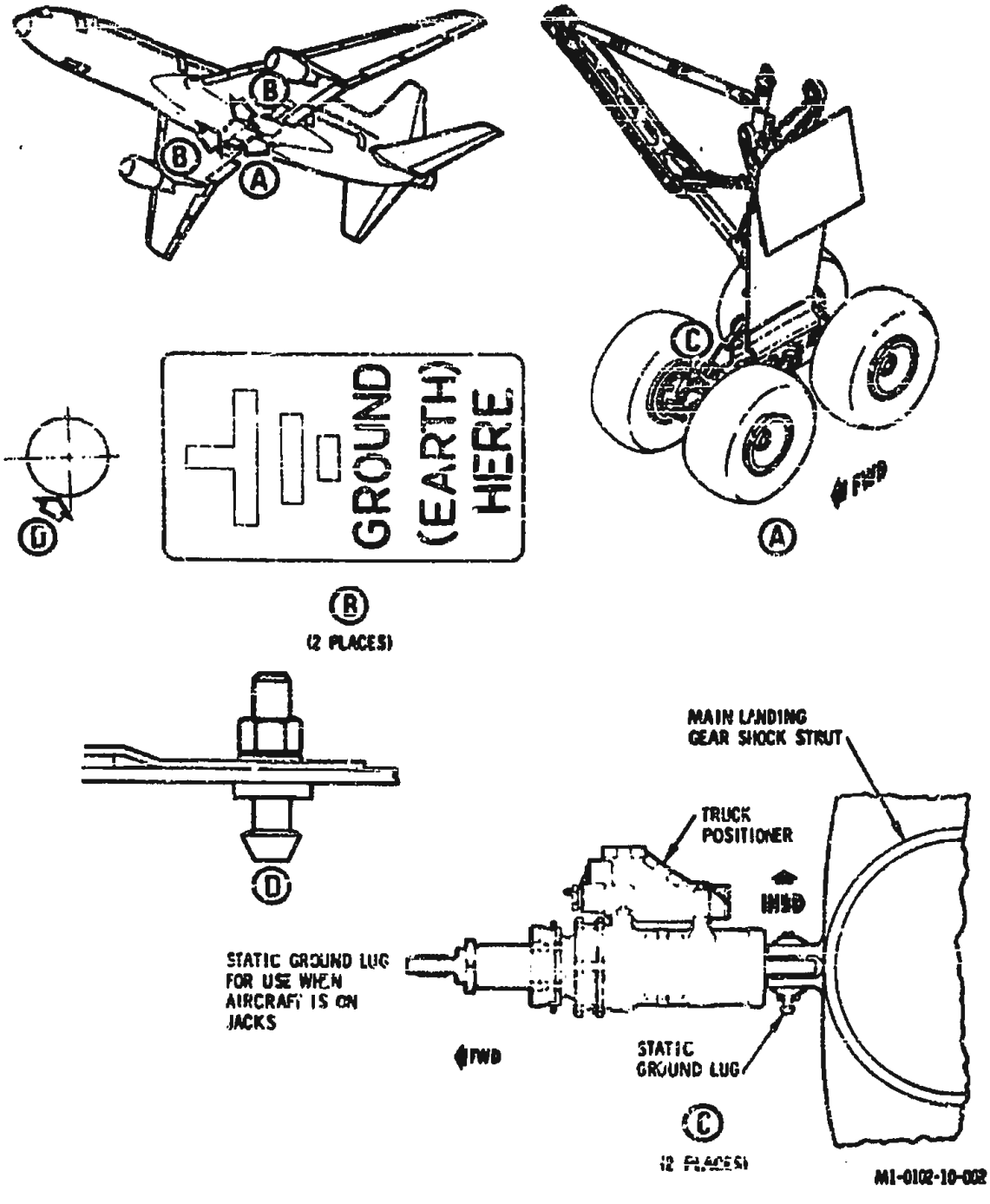


CR
CR

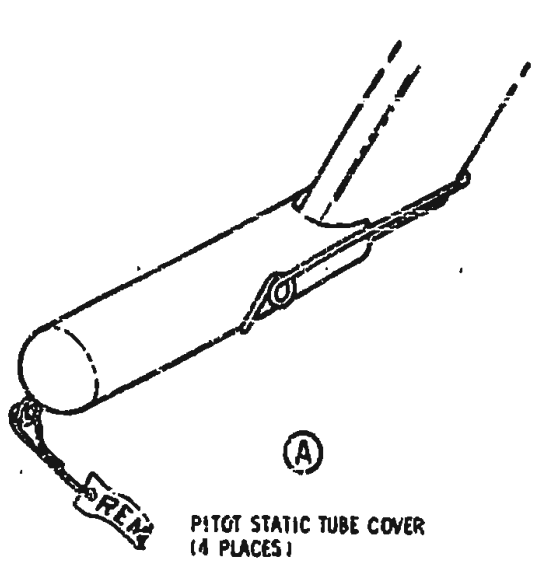
Landing Gear Ground Safety Lockpin
Figure 201

EFFECTIVITY: ALL

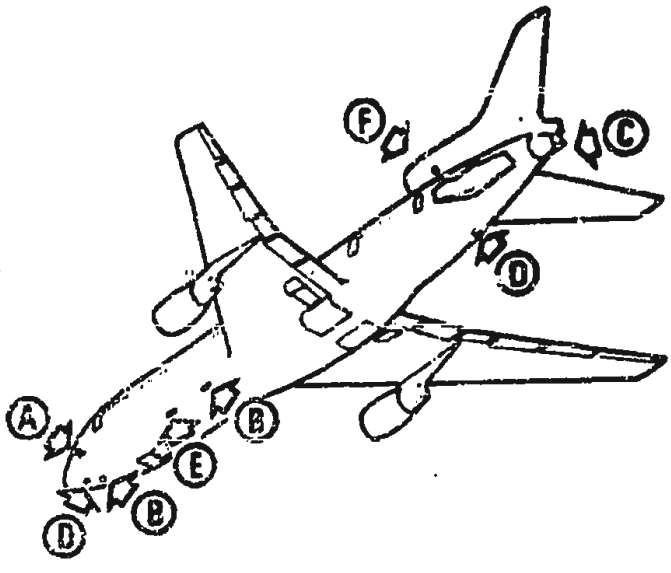
0018

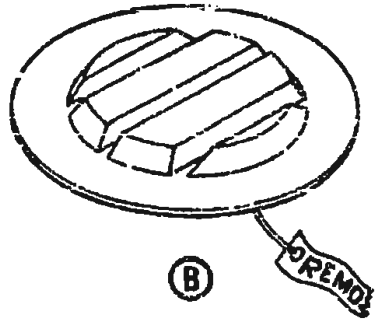


Static Ground Terminals
Figure 202

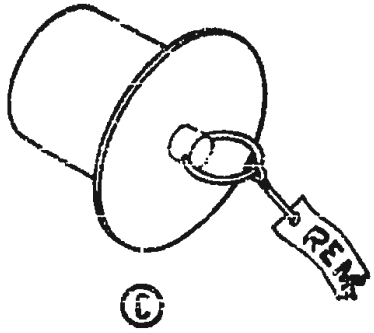


PITOT STATIC TUBE COVER
(4 PLACES)

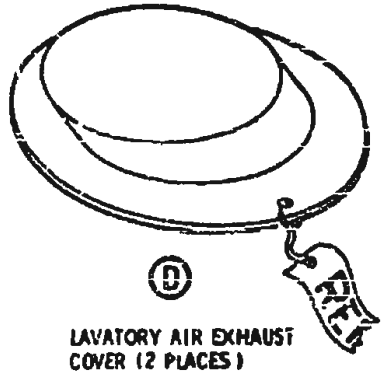




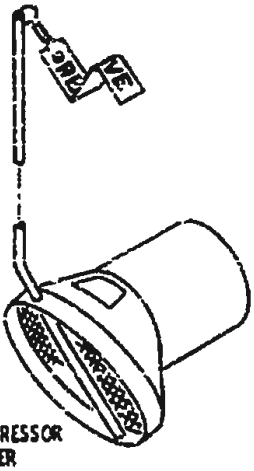
FORWARD ELECTRONICS AND MID ELECTRICAL SERVICE CENTER EXHAUST COVER (2 PLACES)



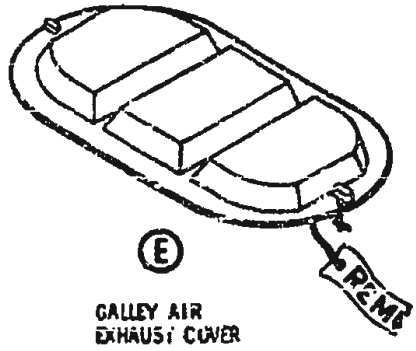
APU VENT OUTLET PLUG
(RIGHT SIDE ONLY)



LAVATORY AIR EXHAUST
COVER (2 PLACES)



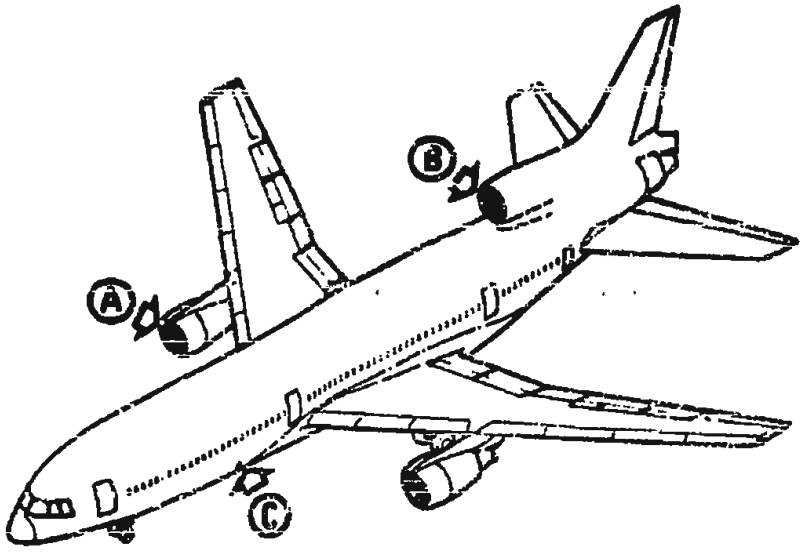
APU LOAD COMPRESSOR
INLET DUCT COVER
(LEFT SIDE ONLY)

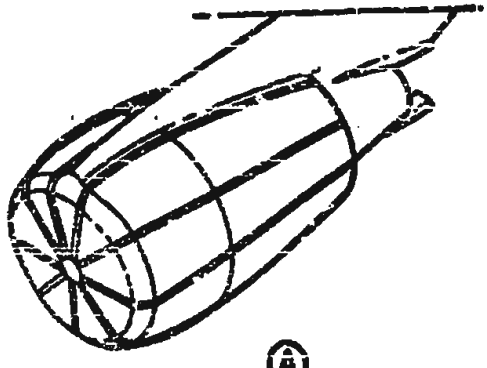


GALLEY AIR
EXHAUST COVER

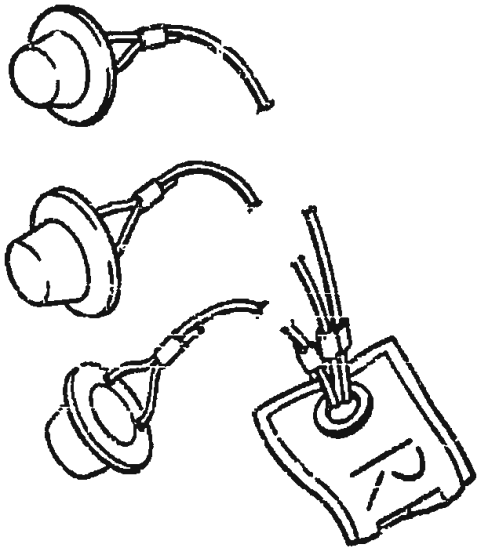
M1-0101-10-00

Protective Covers and Plugs
Figure 203 (Sheet 1)

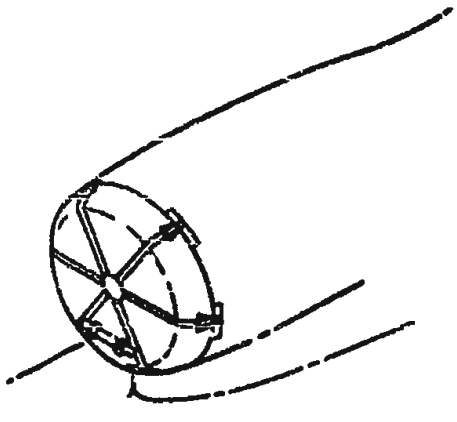




Ⓐ
COVER SET
WING-MOUNTED ENGINES



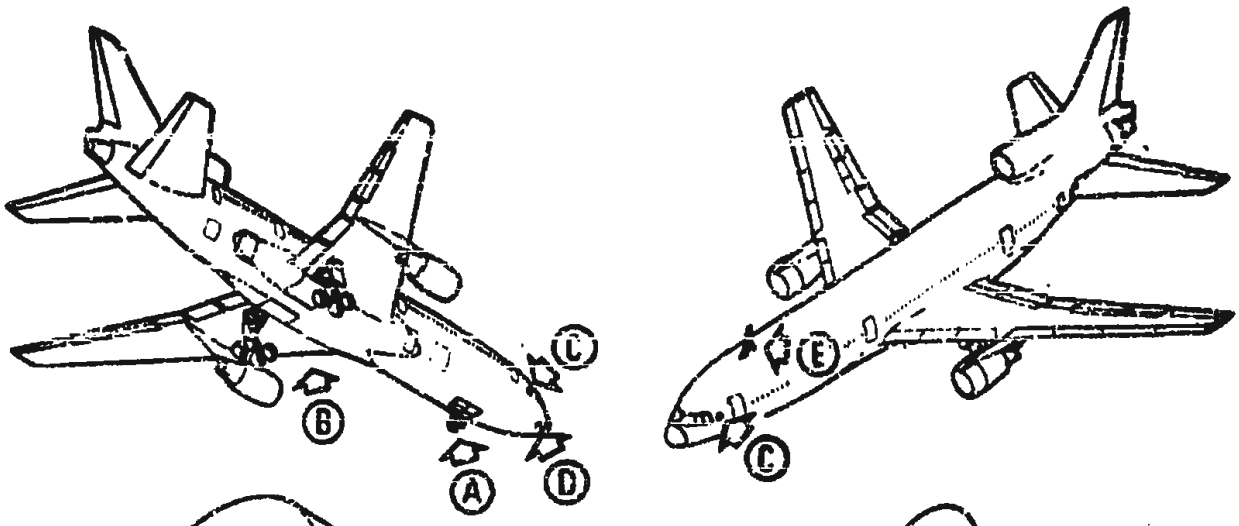
Ⓒ
ENVIRONMENTAL CONTROL SYSTEM
FLUSH STATIC PORTS

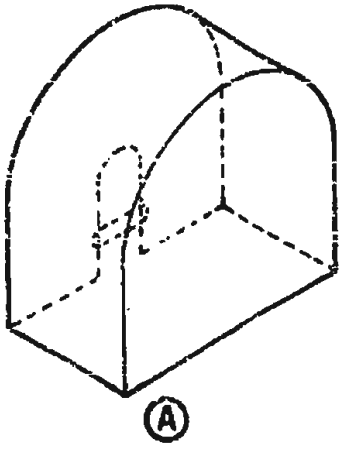


Ⓑ
INLET COVER
NO. 2 ENGINE

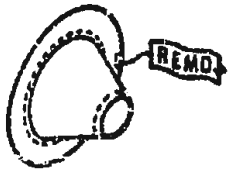
HS 5778
A11-A00-10-005

Protective Covers and Plugs
Figure 203 (Sheet 2)

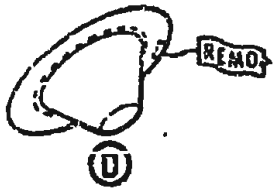




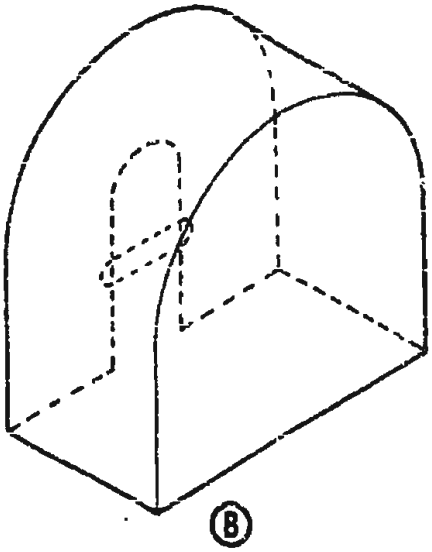
NLG TIRE PROTECTIVE COVER



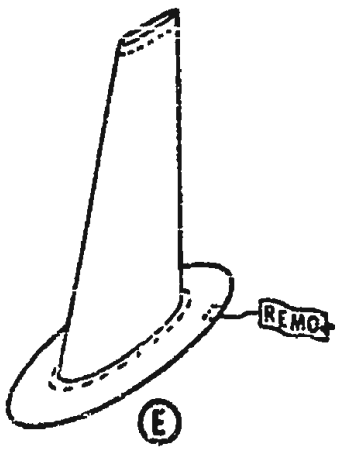
ANGLE OF ATTACK SENSOR
PROTECTIVE COVER



TOTAL TEMPERATURE SENSOR
PROTECTIVE COVER



MLG TIRE PROTECTIVE COVER



VHF NO. 1 ANTENNA
PROTECTIVE COVER

M1-0100-10-006

Protective Covers and Plugs
Figure 203 (Sheet 3)

4. Short-term Storage Procedures

The following requirements apply in addition to normal parking procedures (Ref. Para. 3). These additional procedures are to be performed when an aircraft is inactive for an extended period but is to be kept in a condition that permits it to be returned to service with a minimum expenditure of manhours. In order to maintain this condition, the specified systems must be operated at 30-day intervals.

A. Exterior Surfaces

(1) Unpainted Surfaces

(a) Prior to storage, surface scratches must be repaired (Ref. Structural Repair Manual 51-10-03).

WARNING: DO NOT ALLOW COMPOUND TO CONTACT EYES. PROLONGED EXPOSURE MAY RESULT IN EYE IRRITATION.

WARNING: KEEP COMPOUND AWAY FROM HEAT, SPARKS OR OPEN FLAME. FAILURE TO COMPLY MAY RESULT IN MATERIAL COMBUSTION.

(b) Steel surfaces on aircraft parked outside for a period of up to 30 days required no preservation. Exposed steel surfaces, except pitot/static and flush mounted static probes, on aircraft parked outside for a period over 30 days must be cleaned and then coated with MIL-C-16173, Grade II corrosion preventive compound (Ref. 20-12-01) or MIL-G-23827 grease.

(2) Painted Surfaces

(a) Painted surfaces do not require preservation. Touch up painted surfaces where required to prevent corrosion (Ref. 20-51-08).

B. Interior Surfaces

(1) Remove oil and grease spots from cloth, plastic, and painted surfaces using soap and water.

(2) Clean the surfaces of toilets and wash basins.

(3) During the period of inactivity or storage, keep the airplane interior clean and free of debris.

(4) Cover all cloth covered seats with seat covers or equivalent protective devices.

C. Aircraft Openings

(1) Openings (including the flight station emergency escape hatch) located in positions which permit the entrance of water must be protected with adequate covers tied or taped in place.

(2) Openings in the underside of the aircraft may be left uncovered provided water, dust, birds, insects, and rodents cannot enter. Cheese cloth or other suitable screening material may be used to cover openings to prevent entrance of insects, birds, and rodents.

(3) On Flight Engineer/Second Officers panel, perform the following:

(a) On CABIN TEMP CONTROL panel, depress to turn on MNL half of PACK 1, 2, and 3 AUTO/MNL switchlights. Depress WARM pushbutton until RAM AIR indicator is positioned fully clockwise (ram air closed).

(b) At fuselage outer surface forward left and right sides, verify that exit louvres are closed.

(c) On CABIN PRESSURE CONTROL panel, depress FWD and AFT MANUAL switchlights to turn on MHL indication. Operate OPEN/CLOSE switches to CLOSE position until FWD and AFT indicators are positioned fully counterclockwise.

(d) At fuselage outer surface forward left and right sides, verify that both outflow valves are closed.

(4) Secure loose ends of all red warning streamers to prevent marring aircraft surfaces during high wind conditions.

D. Lubrication

(1) Lubricate entire aircraft (Ref. 12-20-00) paying particular attention to flap carriage roller cross (frog) bearings. Verify that grease extrudes from vent holes.

E. Cabin Air Temperature

(1) Temperatures of the cabin, flight station, and lavatories must be maintained below 130° Fahrenheit. During daylight hours (bright sunlight) when outside temperatures are high, enough doors on shady side of aircraft must be opened for ventilation. Screens must

be installed on open doors to prevent entry of birds and insects. Doors should be closed at night after inside temperature is reduced.

F. Power Plants

(1) Requirements for engine storage are contained in 71-00-00 (Preservation).

G. Auxiliary Power Unit

(1) Requirements for auxiliary power unit (APU) storage are contained in 49-21-01 (Preservation).

H. Fuel Systems

(1) Fuel system sumps, including tank sumps, must be drained initially, then 5 to 10 days later; thereafter, sumps must be drained every three months.

(2) Fuel tanks must be treated with Biobor (Ref. 28-11-00, Maintenance Practices).

I. Landing Gear

R (1) On aircraft stored 8 to 30 Days

R WARNING: USE COMPOUND IN WELL VENTILATED AREA. DO NOT
R ALLOW COMPOUND TO CONTACT SKIN OR EYES.
R PROLONGED EXPOSURE MAY RESULT IN SKIN OR EYE
R IRRITATION.

R KEEP COMPOUND AWAY FROM HEAT, SPARKS OR OPEN
R FLAME. FAILURE TO COMPLY MAY RESULT IN
R MATERIAL COMBUSTION.

R (a) Coat exposed portion of strut pistons with
R corrosion preventive compound (Ref. 20-12-01) or
R grease.

R (b) Firmly secure a sleeve of waterproof paper or oil
R resistant plastic film to strut and piston.

R (c) Maintain correct inflation of nose and main
R landing gear struts.

R (d) Coat MLG and NLG retract actuator, NLG uplock
R actuator, MLG jury brace actuator, nose gear
R steering actuator, truck positioner, and uplock
R and upstop snubber exposed pistons with corrosion
R preventive compound (Ref. 20-12-01) or grease.

R (e) Leave tail skid extended and coat exposed piston
R with MIL-C-16173 Grade II corrosion preventive
R compound (Ref. 20-12-01) or grease.

R (1) On aircraft stored over 30 Days

R WARNING: USE COMPOUND IN WELL VENTILATED AREA. DO NOT
R ALLOW COMPOUND TO CONTACT SKIN OR EYES.
R PROLONGED EXPOSURE MAY RESULT IN SKIN OR EYE
R IRRITATION.

R KEEP COMPOUND AWAY FROM HEAT, SPARKS OR OPEN
R FLAME. FAILURE TO COMPLY MAY RESULT IN
R MATERIAL COMBUSTION.

R (a) Coat portion of strut pistons that will be exposed
R following strut deflation with MIL-C-16173 Grade
R II corrosion preventive compound (Ref. 20-12-01)
R or grease.

R NOTE: Portion of strut pistons that will be
R exposed may be determined by wiping the
R strut with hydraulic fluid so that a film
R remains, depressurizing the strut and then
R repressurizing the strut for access. The
R area below that part of strut wiped by the
R strut seal must be coated.

R (b) Deflate struts completely.

R (c) Firmly secure a sleeve of waterproof paper or oil
R resistant plastic film to strut and piston.

R (d) Coat MLG and NLG retract actuator, NLG uplock
R actuator, MLG jury brace actuator, nose gear
R steering actuator, truck positioner, and uplock
R and upstop snubber exposed pistons with corrosion
R preventive compound (Ref. 20-12-01) or grease.

R (e) Leave tail skid extended and coat exposed piston
R with MIL-C-16173 Grade II corrosion preventive
R compound (Ref. 20-12-01) or grease.

J. Tires

(1) Aircraft Not On Jacks

WARNING: USE COATING IN WELL VENTILATED AREA. DO NOT

ALLOW COATING TO CONTACT SKIN OR EYES. PROLONGED EXPOSURE MAY RESULT IN SKIN OR EYE IRRITATION. KEEP COATING AWAY FROM HEAT, SPARKS AND OPEN FLAME. FAILURE TO COMPLY MAY RESULT IN MATERIAL COMBUSTION.

(a) For storage in excess of 72 hours, clean tires and apply two coats of protective coating material Lockheed Specification C-37-672, Type I, or equivalent.

(b) Cover tires with canvas, black polyethylene, or similar material (Ref. Fig. 203). Keep tires clean and free of oil, grease, and solvents.

(c) Maintain correct tire pressure.

(d) Eight days prior to expected flight and every three days thereafter, rotate wheels one-third turn.

(2) Aircraft On Jacks

(a) Prepare tires as called out in Step (1) except tires need not be rotated or pressure maintained. Reduce tire pressure to about one half of operational pressure.

K. Brakes

(1) Cycle brakes 10 times every 30 days of inactivity.

L. Hydraulic System

(1) Over 7 Days

(a) Service all hydraulic reservoirs (Ref. 12-13-01).

(b) Depressurize hydraulic reservoirs to 0 psi and accumulators to 10 psi (Ref. 29-11-00).

(c) Every 30 days, cycle all operable hydraulic components at least three times except for the following:

Nose gear steering

Landing gear retraction

Truck level positioning

Tail skid.

(d) After cycling, wipe all exposed actuator pistons with a clean cloth dampened with hydraulic fluid, Lockheed Specification C-34-1224.

M. Electronic and Electrical Equipment

(1) Keep installed equipment free of dirt, chips, liquids, and other foreign material.

(2) Protect disconnected electrical fittings and connectors with suitable clean metal or plastic caps.

(3) On aircraft stored outside, cover the angle-of-attack sensor probes, total temperature probes, and No. 1 VHF antenna with protective boots or covers (Ref. Fig. 203).

(4) Open the following circuit breakers (Ref. 24-50-00):

(a) Pilots overhead circuit breaker panel CB1:

NO 1 NAVIGATION - DIR GYRO (G5)(AIRCRAFT WITHOUT INS)

NO 1 NAVIGATION - AIR DATA CMTR (G8)

NO 2 NAVIGATION - DIR GYRO (G23) (AIRCRAFT WITHOUT INS)

NO 2 NAVIGATION - AIR DATA CMTR (G27)

NO 1 NAVIGATION - VG/INS 1 (G6)

NO 1 NAV & INSTR - F/O RDDMI (E3)

NO 1 NAV & INSTR - INS PWR (E6)

NO 1 NAV & INSTR - INS HTR (E7)

NO 1 INSTRUMENT - CAPT - ADI (F2), HSI (F3)

NO 2 INSTRUMENTS - F/O - ADI (F20), HSI (F21)

NO 2 NAVIGATION - INS/VERT GYRO (G24)

NO 2 NAVIGATION - INS HTR (G25)

NO 2 NAV & INSTR - INS 3/GYRO 3 (E24)

NO 2 NAV & INSTR - CAPT RDDMI (E20)

NO 2 NAV & INSTR - INS 3 HTR (E25)

RAT MAN DEPLOY (B14)

RAT AUTO DEPLOY (L3)

ENGINE - B START IGN - ENG 1 (F13), 2 (F14), 3 (F15)

FIRE EXTINGUISHER - ENG 1 - MAIN (C10) ALTN (C11) ENG 2 - MAIN (C12) ALTN (C13) ENG 3 MAIN (C14) ALTN (C15)

FIRE EXTINGUISHER - APU-MAIN (C16) ALTN (C17), APU FIRE SHUTDOWN (C18)

PASS OXYGEN - NORMAL - MASK (J15) GEN (J16), OVERRIDE - MASK (J17) GEN (J18)

NO. 1 NAVIGATION - VOICE RECORDER (D1)

ENVIR CONTROL SYSTEM - MANUAL CABIN - PRESS CONTROL FWD (H1), AFT (H2)

RAIN-REPELLENT - INBD (L1), OUTBD (L2)

(b) Flight Engineer/Second Officers overhead circuit breaker panel CB2:

ANTI-ICE - PITOT HEAT - F/O PRIM (E17), F/O SEC (E16), CAPT SEC (E18)

ANTI-ICE - TOTAL TEMP - L (E19), R (E20)

ANTI-ICE - LEFT ALPHA HEAT (E12), RIGHT ALPHA HEAT (E22)

ANTI-ICE - ICE SENSOR - AC (D12), DC (D13)

RIGHT WINDOW HEAT - WINDSHIELD - PWR (B19), CONT (B18)

RIGHT WINDOW HEAT - SIDE WINDOWS - FWD CONT (B20), FWD PWR (B21), AFT PWR (B22)

LEFT WINDOW HEAT - SIDE WINDOWS - FWD PWR (B12), AFT PWR (B13), AFT CONT (B14)

LEFT WINDOW HEAT - WINDSHIELD - CONT (B15), PWR (B16)

WINDSHIELD DEFOG & F/O WIPER PWR (C13)

DRAINMASTER HEATER - CONT (E13), AFT (E14), MID (E15)

FLAP LOAD RELIEF - CHAN 1 (H12), CHAN 2 (H20), IND (H13)

FWD WATER HEATER (A7)

(c) Flight Engineer/Second Officers vertical circuit breaker panel CB3:

IDG OIL - TEMP (AA18)

ELECTRIC METER SWITCH (G16)

INSTR & CONTROLS - ALL ENGINES - CONT IGN-SYS A (R8), SYS B (R9)

START IGN SYS A (N6)

START IGN SYS A (N12)

START IGN SYS A (N18)

APU BAT BUS - IGNITION (S11)

CAPT - PRI PITOT HEAT (H14)

AIDS/FLT RCDR-DC (H10), Aφ(H11), Bφ(H12), Cφ(H13)

FLOOR HEAT - CONT (W11), PWR (W12)

(AIRCRAFT 001-031)

CABIN PRESSURE CONT - AUTO-CONT (X9), PWR (X10)

CABIN PRESSURE CONT - STBY - CONT (X11), PWR (X12)

OUTFLOW VALVE - FWD (X14), AFT (X17)

CAPT - PRI PITOT HEAT (H14)

AIR DATA HEAT SENSOR (H5)

(d) Galley right circuit breaker panel:

WATER SYSTEM - QTY/PRESS IND (1B)

WATER SYSTEM - PRESSURIZATION - 1 (2G), 2 (5G)

WATER SYSTEM - COOLER FWD (2C), AFT (9C)

WATER SYSTEM - HEATER - SUPPLY DRAIN (6D)

WATER SYSTEM - HTR DRAIN LINE (2B) (AIRCRAFT 001-031)

WATER SYSTEM - HEATER (2B) (AIRCRAFT 032-999)

WATER SYSTEM - HEATERS - SVCE CTR AFT LAV 5 (4C), 3 & 4 (5C)

WATER SYSTEM - HEATER - LAV AFT 1 & 2 (6C)

WATER SYSTEM - HEATER - DRAIN LINES - LAV AFT (6D), GALLEY (7D)

HEATERS - JET PUMP LAV (3A)

WASTE SYS HTR (1A)

(e) Galley left circuit breaker panel:

SVCE CENTER - BVGE BAR - FWD (15H) (AIRCRAFT 001-029)

FWD SATELLITE - BVGE BAR & LIGHTS (15H) (AIRCRAFT 032-999)

COFFEEMAKER - 3 (14K), 4 (17K)

COFFEEMAKER - 6 (11K)

COFFEEMAKER - 2 (5H)

SVCE - CTR AFT (8K)

HEATER - UNDERFLOOR LAV AFT (19B)

LIGHTING- WATER SVCE PNL (20G) (AIRCRAFT 001-031 WITHOUT SB24-037)

LIGHTING - WATER SVCE PNL AND PRESS 1 (20G) (AIRCRAFT 001-031 WITH SB24-037 AND 032-999)

WATER PRESS 2 (20H) (AIRCRAFT 001-031 WITH SB24-037 AND 032-999)

(5) Remove tapes from DFDR voice recorder and boarding music reproducer.

(6) Operate installed equipment for 60 minutes every 30 days.

N. Crew Oxygen System

(1) Record oxygen cylinder pressure and close shutoff valve.

(2) Place polyethylene bag over each mask assembly.

O. Fire Extinguishing System

(1) Maintain all integral fire extinguishing systems in serviceable condition.

(2) Portable fire extinguishers must remain installed in the aircraft.

P. Windows

NOTE: Plastic windows are easily scratched or abraded. Glass surfaced windshields are more durable, but both plastic and glass must be protected from impact from tools or debris, and abrasion from wind-blown sand. Protection may be provided by use of protective covers or films.

(1) Clean surfaces with a mild detergent solution applied with a clean white cloth. Remove detergent solution using clean, white cloths dampened with water. Allow surface to air dry.

(2) Accomplish final cleaning with clean water and clean, white cloths. Allow surface to air dry.

(3) Apply Protex 20-V paper to clean surfaces.

Q. Pitot/Static Openings

(1) Outside Storage

(a) Cover pitot/Static tubes and other protuberances with holes using protective boots (Ref. Fig. 203).

(b) Protect openings and red-line border area of flush static ports with protective covers, taped in place.

R. Storage Battery

(1) Remove battery from aircraft (Ref. 24-32-03).

(2) Protect Elcon heavy duty connector from contact with fluids and from mechanical damage.

(3) Plug auxiliary connector.

S. Emergency Power Pack

(1) Remove all emergency power packs from aircraft (Ref. 33-51-03).

T. Underwater Locator Device (ULD)

(1) Remove ULD if installed (Ref. 31-31-07).

U. Water System

(1) Drain and flush waste water systems (Ref. 12-15-11).

(a) Service system. At locations where freezing temperatures are expected, add sufficient quantity of glycol to servicing fluid.

(b) Cover and seal all toilet openings with aluminized paper and secure with tape.

(c) Cover waste tank vents with cheesecloth.

(2) Drain potable water system.

V. Windshield Washer System

(1) Service with windshield washer fluid (Ref. 12-16-01).

(2) Ensure that manual valves are in off position.

(3) Protect spray nozzles with covers taped in place.

W. Rain Repellent System

(1) Protect spray nozzles with covers taped in place.

CAUTION: DO NOT ALLOW RAIN REPELLENT FLUID TO CONTACT A DRY WINDSHIELD. ANY FLUID IN CONTACT WITH AIRCRAFT EXTERIOR MUST BE WASHED OFF WITH WATER WITHIN TWO HOURS.

C X. Emergency Egress Power Supply

C (1) Remove all emergency power supplies from aircraft (Ref.
C 33-59-02).

5. Maintenance During Short-term Storage

A. Storage integrity must be monitored by detailed inspection for security of mooring equipment, protective covers, films, and compounds. Systems which are operable must be inspected for leaks. Cabin interiors must be inspected for temperature control and entrance of water and wind blown dirt and debris. Operational checks of the hydraulic system, including brakes, must be conducted. Fire extinguishers must be maintained in operational condition. The following must be inspected at the frequencies indicated.

DAILY	30-DAY INTERVALS
(1) Cabin air temperature (if outside air temperature is above 95 degrees fahrenheit)	(1) Tire inflation
	(2) Fuel leaks
	(3) Landing gear
(2) Mooring and parking equipment and condition	(4) Fire extinguishers
	(5) Windshield washer system for leaks
	(6) APU (Ref. 49-21-01)
	(7) Rain repellent system
	(8) Electrical and electronic equipment
	(9) Unpainted exterior surfaces
	(10) Interior surfaces
	(11) Aircraft openings
	(12) Crew oxygen system
	(13) Pitot/static openings
	(14) Windows

6. Long-term Storage Procedures

The following requirements apply in addition to normal parking procedures (Ref. Para. 3). This procedures is to be used when an aircraft is inactive for an extended period and a minimum amount of man hours are to be expended to maintain an aircraft in a storage condition. There is no requirement to operate systems while in storage.

A. Exterior Surfaces

(1) Unpainted Surfaces

(a) Prior to storage, surface scratches must be repaired (Ref. Structural Repair Manual 51-10-03).

WARNING: DO NOT ALLOW COMPOUND TO CONTACT EYES. PROLONGED EXPOSURE MAY RESULT IN EYE IRRITATION.

WARNING: KEEP COMPOUND AWAY FROM HEAT, SPARKS OR OPEN FLAME. FAILURE TO COMPLY MAY RESULT IN MATERIAL COMBUSTION.

(b) Exposed steel surfaces, except pitot/static and flush mounted static probes must be cleaned and then coated with MIL-C-16173, Grade II corrosion preventive compound (Ref. 20-12-01) or MIL-G-2387 grease.

(2) Painted Surfaces

(a) Painted surfaces do not require preservation. Touch up painted surfaces where required to prevent corrosion (Ref. 20-51-08).

B. Interior Surfaces

(1) Remove oil and grease spots from, cloth, plastic, and painted surfaces using soap and water.

(2) Clean the surfaces of toilets and wash basins.

(3) During the period of inactivity or storage, keep the airplane interior clean and free of debris.

(4) Cover all cloth covered seats with seat covers or equivalent protective devices.

C. Aircraft Openings

(1) Openings (including the flight station emergency escape hatch) located in positions which permit the entrance of water must be protected with adequate covers tied or taped in place.

(2) Openings in the underside of the aircraft may be left uncovered provided water, dust, birds, insects, and rodents cannot enter. Cheese cloth or other suitable screening material may be used to cover openings to prevent entrance of insects, birds, and rodents.

(3) On Flight Engineer/Second Officers panel, perform the following:

(a) On CABIN TEMP CONTROL panel, depress to turn on MNL half of PACK 1, 2, and 3 AUTO/MNL switchlights. Depress WARM pushbutton until RAM AIR indicator is positioned fully clockwise (ram air closed).

(b) At fuselage outer surface forward left and right sides, verify that exit louvres are closed.

(c) On CABIN PRESSURE CONTROL panel, depress FWD and AFT MANUAL switchlights to turn on MNL indication. Operate OPEN/CLOSE switches to CLOSE position until FWD and AFT indicators are positioned fully counterclockwise.

(d) At fuselage outer surface forward left and right sides, verify that both outflow valves are closed.

(4) Secure loose ends of all red warning streamers to prevent marring aircraft surfaces during high wind conditions.

D. Lubrication

(1) Lubricate entire aircraft (Ref. 12-20-00) paying particular attention to flap carriage roller cross (frog) bearings. Verify that grease extrudes from vent holes.

E. Cabin Air Temperature

(1) Temperatures of the cabin, flight station, and lavatories must be maintained below 130° Fahrenheit. During daylight hours (bright sunlight) when outside temperatures are high, enough doors on shady side of aircraft must be opened for ventilation. Screens must be installed on open doors to prevent entry of birds

and insects. Doors should be closed at night when inside temperature is reduced.

F. Power Plants

(1) Requirements for engine storage are contained in 71-00-00 (Preservation). The engine manufacturer (Rolls Royce) has authorized simplified storage procedures for favorable climatic conditions. If this is considered to be applicable, the engine manufacture should be contacted.

G. Auxiliary Power Unit

(1) Requirements for auxiliary power unit (APU) storage are contained in 49-21-01 (Preservation).

H. Fuel Systems

(1) Fuel system sumps, including tank sumps, must be drained initially, then 5 to 10 days later; thereafter, sumps must be drained every three months.

(2) Fuel tanks must be treated with Biobor (Ref. 28-11-00 Maintenance Practices).

(3) Drain fuel sample at 12-month intervals for laboratory testing.

(4) Cover fuel tank vents with cheesecloth.

I. Landing Gear

R WARNING: USE COMPOUND IN WELL VENTILATED AREA. DO NOT
R ALLOW COMPOUND TO CONTACT SKIN OR EYES.
R PROLONGED EXPOSURE MAY RESULT IN SKIN OR EYE
R IRRITATION.

R KEEP COMPOUND AWAY FROM HEAT, SPARKS OR OPEN
R FLAME. FAILURE TO COMPLY MAY RESULT IN
R MATERIAL COMBUSTION.

R (1) Coat portion of strut pistons that will be exposed
R following strut deflation with MIL-C-16173 Grade II
R corrosion preventive compound (Ref. 20-12-01) or
R grease.

R NOTE: Portion of strut pistons that will be exposed
R may be determined by wiping the strut with
R hydraulic fluid so that a film remains,
R depressurizing the strut and then repressurizing

R the strut for access. The area below that part
R of strut wiped by the strut seal must be coated.

R (2) Deflate struts completely.

R (3) Firmly secure a sleeve of waterproof paper or oil
R resistant plastic film to strut and piston.

R (4) Coat MLG and NLG retract actuator, NLG uplock actuator, MLG jury brace actuator, nose gear steering actuator, truck positioner, and uplock and upstop snubber exposed pistons with MIL-C-16173, Grade II corrosion preventive compound or MIL-G-23827 grease.

R (5) Leave tail skid extended and coat exposed piston with corrosion preventive compound (Ref. 20-12-01) or grease.

J. Tires

(1) Aircraft Not On Jacks

(a) Clean tires and apply two coats of protective coating material Lockheed Specification C-37-672, Type I, or equivalent.

(b) Cover tires with canvas, black polyethylene, or similar material (Ref. Fig. 203). Keep tires clean and free of oil, grease, and solvents.

(c) Maintain correct tire pressure.

(d) Eight days prior to expected flight and every three days thereafter, rotate wheels one-third turn.

(2) Aircraft On Jacks

(a) Prepare tires as called out in Step (1) except tires need not be rotated or pressure maintained. Reduce tire pressure to about one half of operational pressure.

K. Hydraulic System

(1) Service all hydraulic reservoirs (Ref. 12-13-01).

(2) Depressurize hydraulic reservoirs to 0 psi and accumulators to 10 psi (Ref. 29-11-00).

(3) All exposed finished surfaces of actuating rods, flap jackscrews, hydraulic cylinders, locks, etc, must be cleaned and coated with corrosion preventive compound.

L. Electronic and Electrical Equipment

(1) Keep installed equipment free of dirt, chips, liquids, and other foreign material.

(2) Protect disconnected electrical fittings and connectors with suitable clean metal or plastic caps.

(3) On aircraft stored outside, cover the angle-of-attack sensor probes, total temperature probes, and No. 1 VHF antenna with protective boots or covers (Ref. Fig. 203).

(4) Remove tapes from DFDR voice recorder and boarding music reproducer.

(5) Open circuit breakers called out in Step 4M(4).

(6) On aircraft without INS,
after 12 months storage, remove standby horizon indicator (Ref. 34-21-08), vertical gyro (34-21-04), directional gyros (Ref. 34-22-04), and yaw rate gyro (Ref. 22-15-02) for spin-up and operational testing. Reinstall after testing.

(6) On aircraft with INS,
after 12 months storage, remove standby gyro horizon (Ref. 34-21-08), vertical gyro (34-21-04), and yaw rate gyro (22-15-02) for spin-up and operational testing. Reinstall after testing.

(7) On aircraft with INS,
after 12 months storage, remove inertial navigation system unit (Ref. 34-43-03) for spin-up and operational testing. Reinstall after testing.

(8) On aircraft with INS,
remove INS battery unit (Ref. 34-43-05).

M. Crew Oxygen System

(1) Remove oxygen cylinder assemblies from aircraft (Ref. 35-11-01). Remove crew portable oxygen bottles.

(2) Cap all lines and other openings with suitable closures.

(3) Place polyethylene bag over each mask assembly.

N. Fire Extinguishing System

(1) Maintain all integral fire extinguishing systems in serviceable condition.

(2) Portable fire extinguishers must remain installed in the aircraft.

O. Windows

NOTE: Plastic windows are easily scratched or abraded. Glass surfaced windshields are more durable, but both plastic and glass must be protected from impact from tools or debris, and abrasion from wind-blown sand. Protection may be provided by use of protective covers or films.

(1) Clean surfaces with a mild detergent solution applied with a clean white cloth. Remove detergent solution using clean, white cloths dampened with water. Allow surface to air dry.

(2) Accomplish final cleaning with clean water and clean, white cloths. Allow surface to air dry.

(3) Apply Protex 20-V paper to clean surfaces.

P. Pitot/Static Openings

(1) Outside Storage

(a) Cover pitot/static tubes and other protuberances with holes using protective boots (Ref. Fig. 203).

(b) Protect openings and red-line border area of flush static ports with protective covers, taped in place.

Q. Storage Battery

(1) Remove battery from aircraft (Ref. 24-32-03).

(2) Protect Elcon heavy duty connector from contact with fluids and from mechanical damage.

(3) Plug auxiliary connector.

R. Emergency Power Pack

(1) Remove all emergency power packs from aircraft (Ref. 33-51-03).

S. Underwater Locator Device (ULD)

(1) Remove ULD if installed (Ref. 31-31-07).

T. Emergency Escape Slides/Rafts

(1) Remove and store emergency escape slides/rafts (Ref. 25-61-10).

U. Water System

(1) Drain and flush waste water systems (Ref. 12-15-11).

(a) Service systems. At locations where freezing temperatures are expected, add sufficient quantity of glycol to servicing fluid.

(b) Cover and seal all toilet openings with aluminized paper and secure with tape.

(c) Cover waste tank vents with cheesecloth.

(2) Drain potable water system.

V. Windshield Washer System

(1) Service with windshield washer fluid (Ref. 12-16-01).

(2) Ensure that manual valves are in off position.

(3) Protect spray nozzles with covers taped in place.

W. Rain Repellent System

(1) Protect spray nozzles with covers taped in place.

CAUTION: DO NOT ALLOW RAIN REPELLENT FLUID TO CONTACT A DRY WINDSHIELD. ANY FLUID IN CONTACT WITH AIRCRAFT EXTERIOR MUST BE WASHED OFF WITH WATER WITHIN TWO HOURS.

C X. Emergency Egress Power Supply

C (1) Remove all emergency power supplies from aircraft (Ref.
C 33-59-02).

7. Maintenance During Long-term Storage

A. Storage integrity must be monitored by detailed inspection at 30-day intervals as follows:

(1) Mooring equipment for wear, deterioration, and tension.

(2) Protective covers for tears, deterioration, security.

(3) Protective films for coverage.

(4) Dessicant bags for condition.

(5) Tires for inflation.

(6) Metal surfaces for corrosion.

(7) Operable systems (hydraulic, fuel, lubrication) for leaks.

(8) Cabin interiors for temperature control, entrance of water, wind, blown dirt, and debris.

(9) Fire extinguishers for operable condition.

8. Depreservation Requirements

Depreservation must be accomplished as detailed in the following procedures. Where requirements are not shown, depreservation is not required.

A. Exterior Surfaces

(1) Unpainted Surfaces

(a) Remove corrosion preventive compound or grease using LCM32-1086 cleaner.

(2) Painted Surfaces

(a) Clean with a mild detergent and water.

B. Interior Surfaces

(1) Clean the aircraft interior using normal cleaning procedures.

(2) Remove seat covers as required.

C. Aircraft Openings

(1) Remove all covers and closures.

(2) Position ECS valves and closures as required.

D. Power Plants

(1) Requirements for engine depreservation are contained in 71-00-00.

E. APU

(1) Requirements for APU depreservation are contained in 49-21-01.

F. Landing Gear

(1) Remove protective paper or films.

WARNING: USE CLEANER IN WELL VENTILATED AREA. DO NOT ALLOW CLEANER TO CONTACT SKIN OR EYES, PROLONGED EXPOSURE MAY RESULT IN SKIN OR EYE IRRITATION. KEEP CLEANER AWAY FROM HEAT, SPARKS, AND OPEN FLAME. FAILURE TO COMPLY MAY RESULT IN MATERIAL COMBUSTION.

(2) Remove grease or corrosion preventive compound from exposed pistons using LCM32-1086 of the following:

(a) Strut

(b) Retract actuator

(c) NLG uplock actuator

(d) MLG jury brace actuator

(e) Nose gear steering actuator

(f) Truck postioner

(g) Uplock and upstop snubber.

(h) Tail skid

(3) Wipe strut, and uplock and upstop snubber pistons with clean cloth dampened with hydraulic fluid (MIL-H-5606). Wipe all other landing gear pistons with hydraulic fluid (Lockheed Spec. C-34-1224).

(4) Inflate struts (Ref. 12-14-12, 12-14-13).

G. Tires

(1) Remove covers and clean tires.

(2) Inflate tires (Ref. 12-14-01).

H. Hydraulic Systems

R (1) Service all accumulators (Ref. 12-14-11, 12-14-16).

(2) Wipe all exposed hydraulic actuator pistons with a clean cloth dampened with hydraulic fluid, Lockheed Spec. C-34-1224 or equivalent.

(3) Remove RAT ground safety lock (Ref. 29-21-00) as required.

I. Electronic and Electrical Equipment

(1) Check all desiccants and replace as required.

(2) Remove covers from angle-of-attack sensor probes, total temperature probes, and No. 1 VHF antenna.

J. Crew Oxygen System

(1) Remove caps and closures from lines.

(2) Inspect lines for cleanness and freedom of oil and grease.

(3) Purge system and reinstall oxygen cylinders (Ref. 35-11-01).

(4) Remove polyethylene bags from masks.

K. Windows

(1) Remove protective covers and film.

(2) Clean surfaces as prescribed in Steps 4.P.(1) and (2).

(3) Clean wiper blades prior to operating windshield wipers.

L. Pitot/Static Openings

(1) Remove protective boots.

(2) Remove covers from flush static ports.

(3) Inspect orifices for blockage and contamination.

M. Storage Battery

(1) Install battery (Ref. 24-32-03).

N. Emergency Power Pack

(1) Install all emergency power packs (Ref. 33-51-03).

O. Underwater Locator Device (ULD)

(1) Install ULD as required (Ref. 51-31-07).

P. Water System

(1) Recharge waste system (Ref. 12-15-11).

(2) Remove covers from toilet seats and waste tank vents.

(3) Fill and sterilize potable water system (Ref. 38-11-00).

Q. Windshield Washer System

(1) Remove protective covers from nozzles.

(2) Check nozzle orifices and clean as required.

R. Rain Repellent System

(1) Remove protective covers from nozzles.

CAUTION: DO NOT ALLOW RAIN REPELLENT FLUID TO CONTACT A DRY WINDSHIELD. ANY FLUID IN CONTACT WITH AIRCRAFT EXTERIOR MUST BE WASHED OFF WITH WATER WITHIN TWO HOURS.

(2) Check nozzle orifices and clean as required.

S. Lubrication

(1) Lubricate entire aircraft (Ref. 12-20-00) paying particular attention to flap carriage roller cross (frog) bearings. Verify that grease extrudes from vent holes.

C T. Emergency Egress Power Supply

C (1) Remove all emergency power supplies from aircraft (Ref.
C 33-59-02).

9. High-wind Condition Parking

A. General

Aircraft mooring is generally not required because weight and design enable the aircraft to withstand normal ground wind conditions without tiedowns being employed. Allowable wind gust velocities for various ground friction conditions are shown in Figure 204. Higher wind gust velocities or

lower tire friction may cause the aircraft to weathercock into the wind. If more severe wind conditions are expected, mooring at landing gear will reduce aircraft movement and the possibility of structural damage (Ref. 10-20-00). If wind velocity of over 100 Knots is expected, it is recommended that the aircraft be ferried to a safe location.

B. Procedure

NOTE: High wind conditions are considered to exist when wind velocity is 71 knots or greater. Aircraft in various engine removed configurations may require mooring at lower wind velocities (Ref. 10-20-00, Table 201).

(1) Head aircraft into the predicted wind direction, if wind gusts are expected to exceed 52 knots, to prevent structural damage of control surfaces.

(2) Park aircraft as specified in Paragraph 3.

(3) Check and reset parking brakes at approximately 4-hour intervals (Ref. 32-48-00). Minimum allowable parking brake pressure is 1300 psi.

(4) It is recommended that the aircraft be fueled to the quantity required for next flight (Ref. Fig. 204).

(5) Close all internal and external doors and hatches.

(6) Remove all unnecessary workstands and other movable ground support equipment from aircraft. (Excessive wind may swing aircraft around; therefore, adequate clearance must be maintained from other aircraft, buildings, and obstructions.)

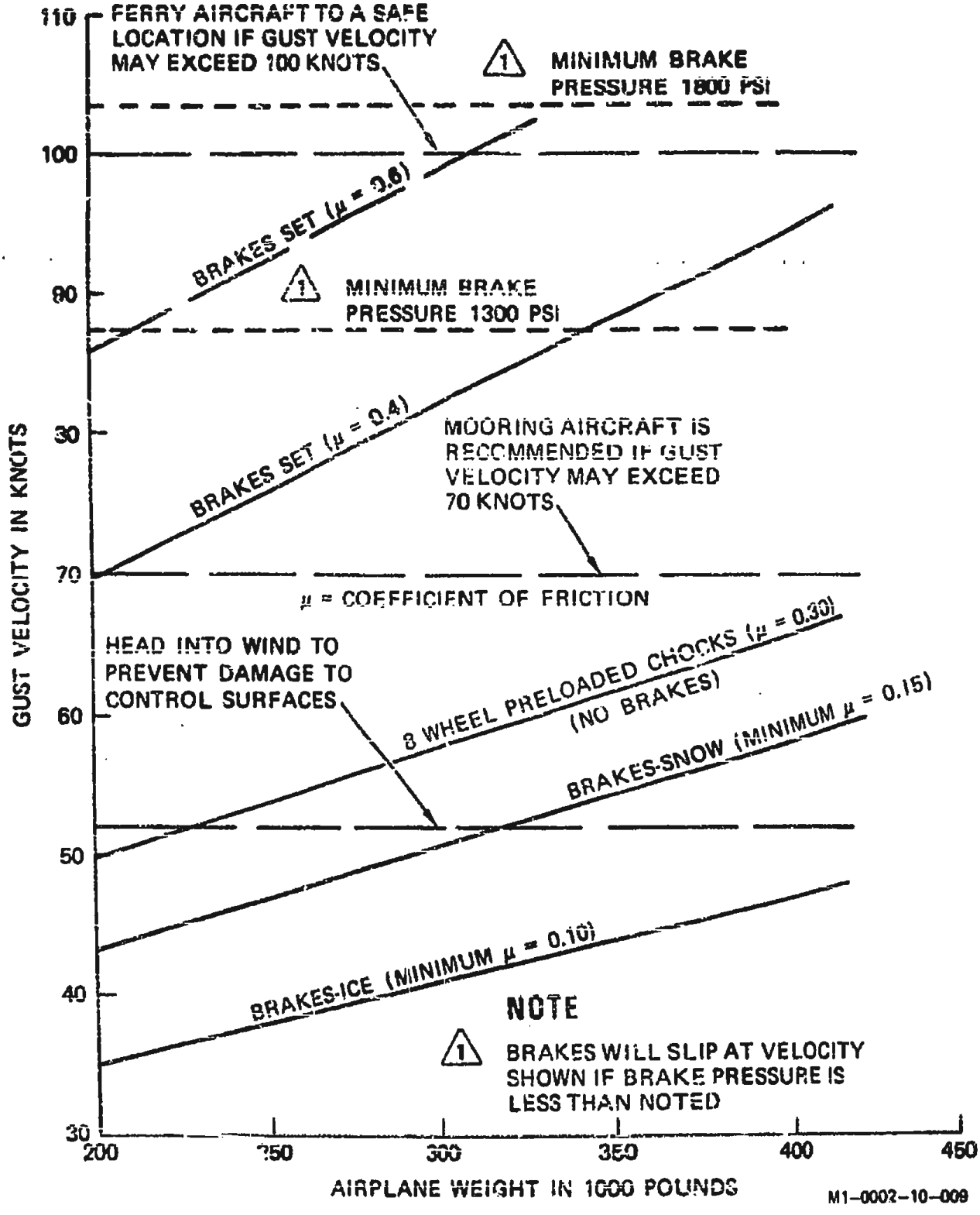
(7) Moor aircraft if wind gusts are expected to exceed 70 Knots.

(8) Ferry aircraft to a safe location if wind gusts are expected to exceed 100 Knots.

10. Cold Weather Parking

A. Procedure

(1) Remove snow and slush from parking area prior to parking airplane. If impractical to clear entire area, tire areas should be cleared to prevent tires from freezing to ramp.



R Wind Gust Velocities and Aircraft Weight Under Various
R Conditions of Mooring
R Figure 204

CAUTION: EXAMINE ENGINE INTAKE AREAS IMMEDIATELY AFTER SHUTDOWN FOR PRESENCE OF ICE WHICH SHOULD BE REMOVED WHILE ENGINE IS COOLING AND BEFORE ENGINE PROTECTIVE PLUGS AND COVERS ARE INSTALLED. IF PLUGS ARE INSTALLED BEFORE ENGINE HAS COOLED, RESIDUAL HEAT WITHIN ENGINE WILL MELT ICE TO WATER WHICH RUNS TO BOTTOM OF COMPRESSOR SECTION. THIS FREEZES AS ENGINE COOLS AND LOCKS COMPRESSOR LOWER BLADE TIPS IN ICE.

NOTE: If snow or sleet is blowing into engine intake area, intake plug should be installed or a cover installed to keep moisture out until engine has cooled. After engine has cooled, examine compression section for accumulation of water and remove any water present.

(2) Ensure wing flaps and slats are retracted and that all plugs and covers provided for intake and exhaust ducts are installed.

(3) Connect electrical ground power to maintain water/waste heater operation, or drain all water from all systems if temperature is expected to fall below freezing.

(4) Mark and rotate the wheels every 24 hours to prevent flat spots from forming.

(5) In the event tires are frozen to ramp, they may be freed by application of hot air, hot water, or by inflating tires. When tires are free, move airplane to a cleared area to prevent refreezing.

(6) Snow and ice should be removed from upper surfaces of airplane, engine inlets and exhausts periodically, depending on weather conditions.

(7) When returning airplane to service, refer to applicable sections of Chapter 12.

MOORING - DESCRIPTION AND OPERATION

1. General

Mooring of the L-1011 will normally not be required; however, to assist in restraining airplane movement, the following precautions should be taken:

The parking brakes should be set.

To the extent practicable, the aircraft should be headed into the wind.

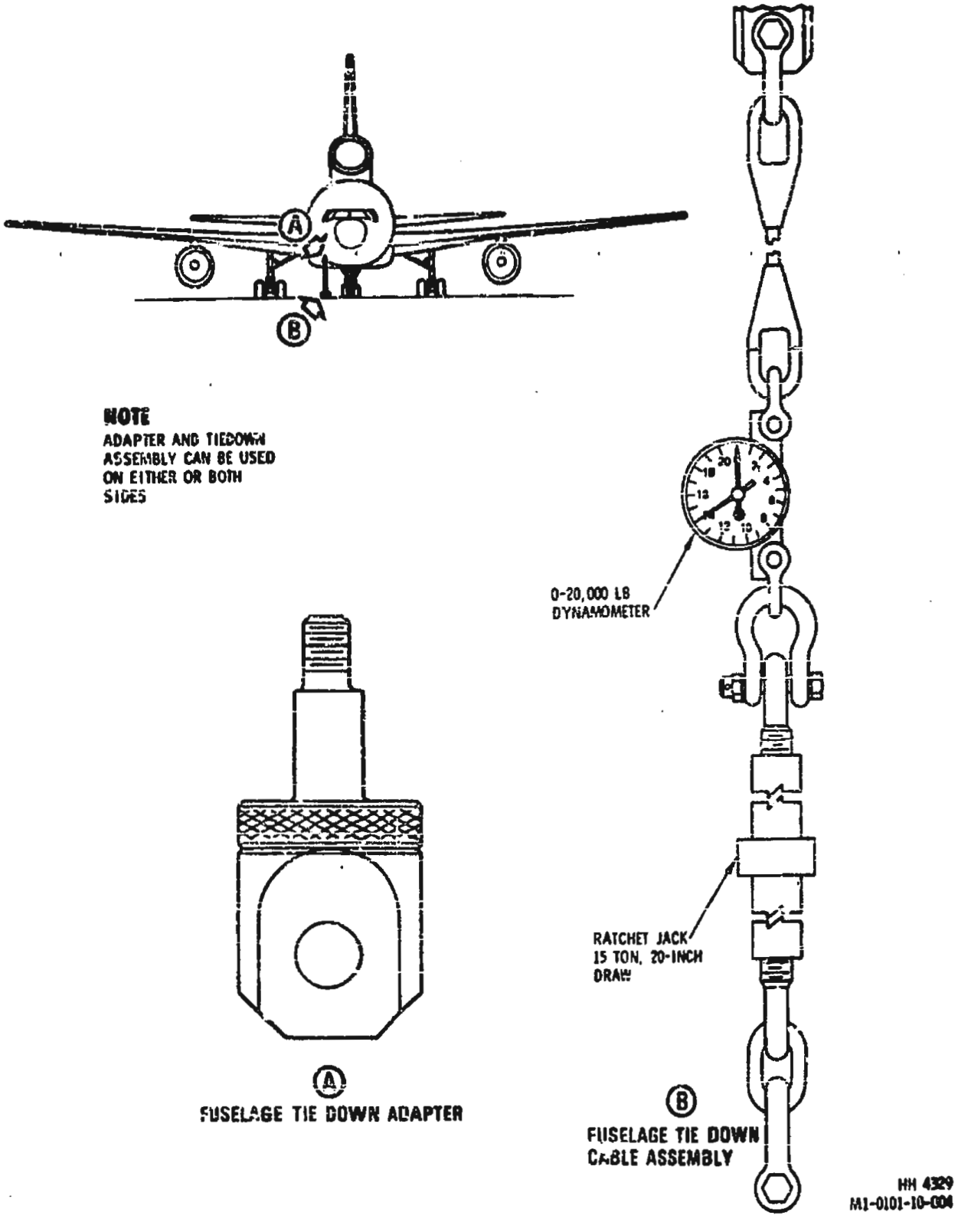
All wing leading and trailing edge devices should be retracted.

The horizontal stabilizer should be set at zero incidence.

CAUTION: STABILITY MAY BE AFFECTED WHEN MAINTENANCE OR UNUSUAL GROUND LOADING EXISTS. STABILITY MUST BE CHECKED PRIOR TO ENGINE REMOVAL (REF. WEIGHT AND BALANCE MANUAL 1-80-05).

R During parking and mooring activities, with both wing engines
R removed and center engine installed, the L-1011 is stable under
R normal conditions. To achieve maximum stability under the above
R conditions install fuselage tiedown cable and adapter (Ref. Fig.
R 1). Stability may also be achieved by the use of a pogo stick type of jack under the tail skid pad at FS 1992 (G/ITEL items 7-11-04, -05 and -07).

C During towing operations with both wing engines removed and
C center engine installed a dummy wing engine ballast, weighing
C 13,500 pounds is available, which can be bolted to the wing
C pylon or 2500 pounds ballast in Fwd Belly compartment to achieve
C maximum stability (G/ITEL 9-11-09).



R Fuselage Tiedown Cable and Adapter
R Figure 1

R EFFECTIVITY: ALL
R
001B

MOORING - MAINTENANCE PRACTICES

1. Equipment and Materials

Downlock Safety Pins, Dwg No. 1302300, or equivalent

Chocks MLG Wheels, PN B723, or equivalent

Wing Engine Inlet Plugs, PN B873, no equivalent

Center Engine Inlet Plugs, PN BA86, no equivalent

Core Engine Nozzle Cover, PN B904, no equivalent

Wing Engine Exhaust Plugs, PN BA94, no equivalent

Center Engine Exhaust Plug, PN BA93, no equivalent

Pitot-static Covers, PN BF76, no equivalent

Lavatory air exhaust covers

Forward electronic service center exhaust cover

Mid electrical service center exhaust cover

Underfloor galley air exhaust cover

APU compartment vent cover

Fuselage Tiedown Cable, PN B750, or equivalent

Fuselage Tiedown Adapter, PN BA69, no equivalent

R 2. Referenced Procedures

R R	03-10-00	Aircraft Tethering - Servicing - Aircraft Recovery Manual
R	10-10-00	Parking - Maintenance Practices

R 3. Maintenance Practices

Aircraft mooring is not generally required because aircraft weight and design will withstand normal ground wind forces from any angle without tiedowns. However, the following mooring procedures are provided for excessive wind conditions.

For in-service aircraft with parking brakes set and winds of 70 knots or greater, mooring of the aircraft to limit movement and possible structural damage is advisable (Ref. 10-10-00, Fig. 201 thru 203). For winds of 100 knots or greater, it is recommended that the aircraft be ferried to a safe location. Mooring and tiedown requirements for various engine-removed configurations are shown in Table 201. Installation of dummy wing engine ballast is equivalent to an installed engine.

When an L-1011 is being modified in a short body aircraft hanger with the tail exposed, it is recommended that tethering restraints be added to the aircraft. These restraints should consist of a support under the tail bumper location and tethers attached to the number 2 engine pylon and nose gear support structure (Ref. Fig. 204). Preloading the aft restraints to 8000 pounds will prevent movement in winds up to 50 MPH. Refer to the Aircraft Recovery Manual, Chapter 3-10-00, for tethering attachment.

Maximum Wind Velocities
Table 201

AIRCRAFT CONDITION	MOORING AND TIEDOWN REQUIREMENTS		
	A	B	C or D
MEW less all three engines		0 - 63 knots	64 - 100 knots
MEW less two wing engines	0 - 52 knots	53 - 70 knots	71 - 100 knots
MEw less one wing engine	0 - 61 knots	62 - 74 knots	75 - 100 knots
MEW	0 - 70 knots	71 - 73 knots	79 - 100 knots

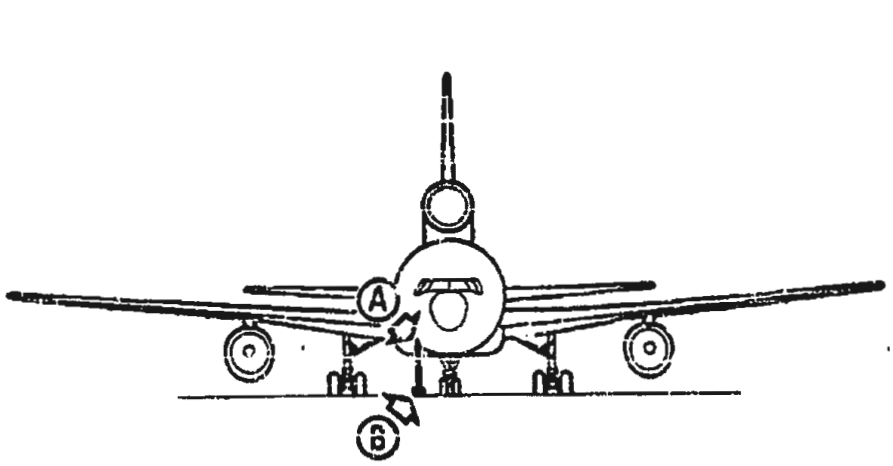
NOTE: If wind velocity over 100 knots is expected, it is recommended that the aircraft be ferried to a safe location.

MEW is manufacturers empty weight.

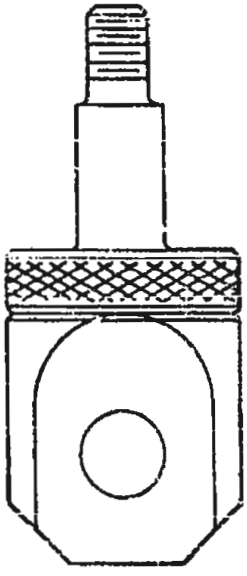
MOORING AND TIEDOWN REQUIREMENTS

A. Parking brakes only.

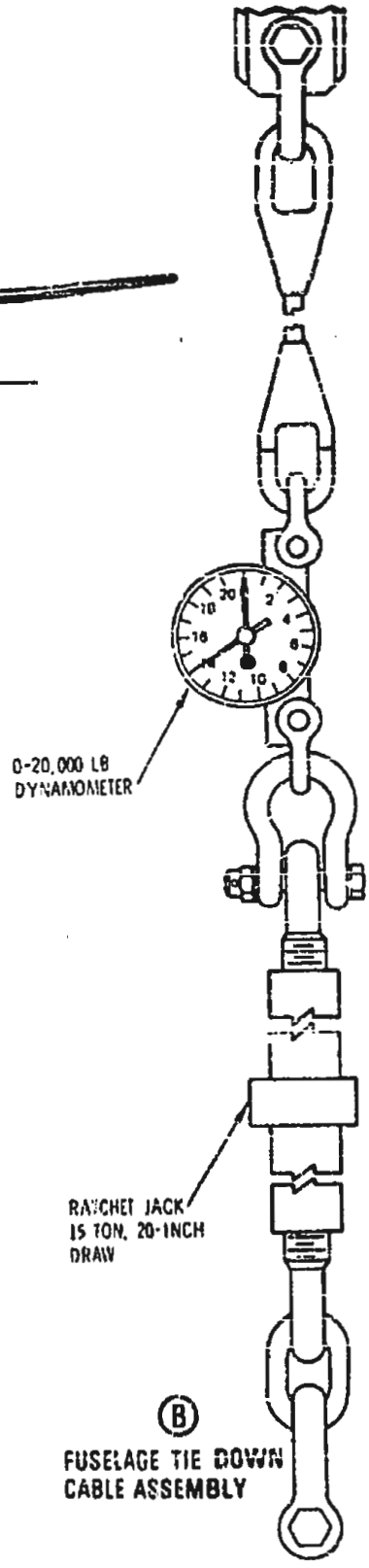
B. Parking brakes plus forward fuselage tiedown cable and adapter (Ref. Fig. 201).



NOTE
ADAPTER AND TIEDOWN ASSEMBLY CAN BE USED ON EITHER OR BOTH SIDES



(A)
FUSELAGE TIE DOWN ADAPTER



(B)
FUSELAGE TIE DOWN
CABLE ASSEMBLY

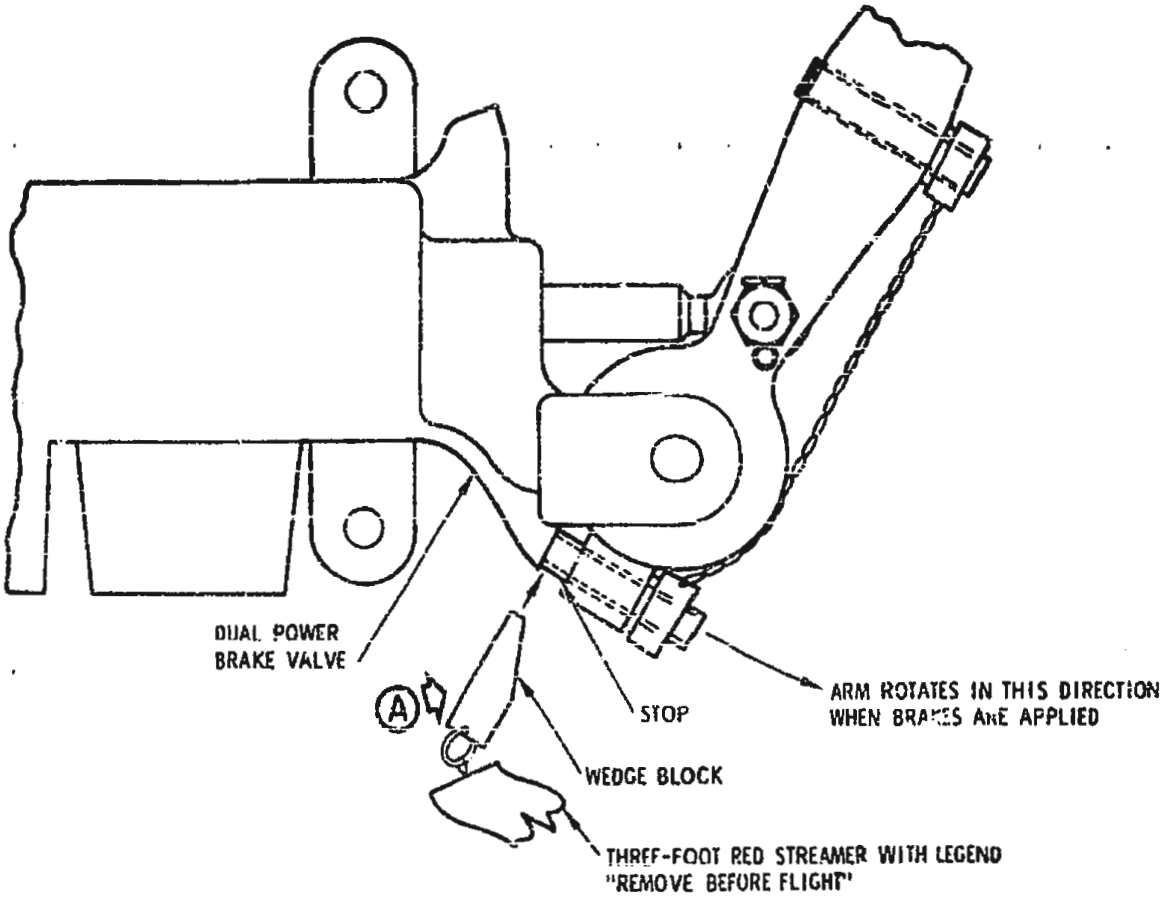
IH 4329
M1-0101-10-004

R Fuselage Tiedown Adapter and Cable Assembly
R Figure 201

C. Parking brakes, forward fuselage tiedown cable and adapter, brake pressure maintained at 1800 psi minimum, and aircraft
R weight at more than 350,000 pounds (Ref. 10-10-00, Fig.
R 204). A minimum brake pressure of 1800 psi requires wedge blocks between dual power brake valve stop screws and valve body to hold brake valves open more than required for normal parking brake operation (Ref. Fig. 202).

D. Parking brakes, forward fuselage tiedown cable and adapter, plus full gear mooring (Ref. Fig. 203).

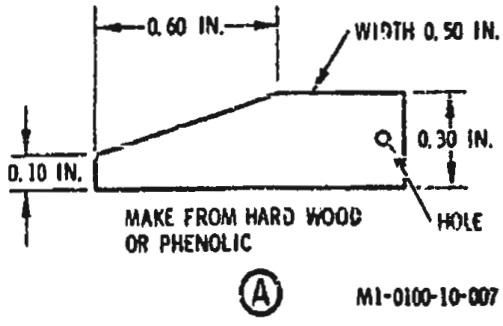
NOTE: The required amount of preload in the forward fuselage tiedown cable and adapter is 14,000 (±2000) pounds.



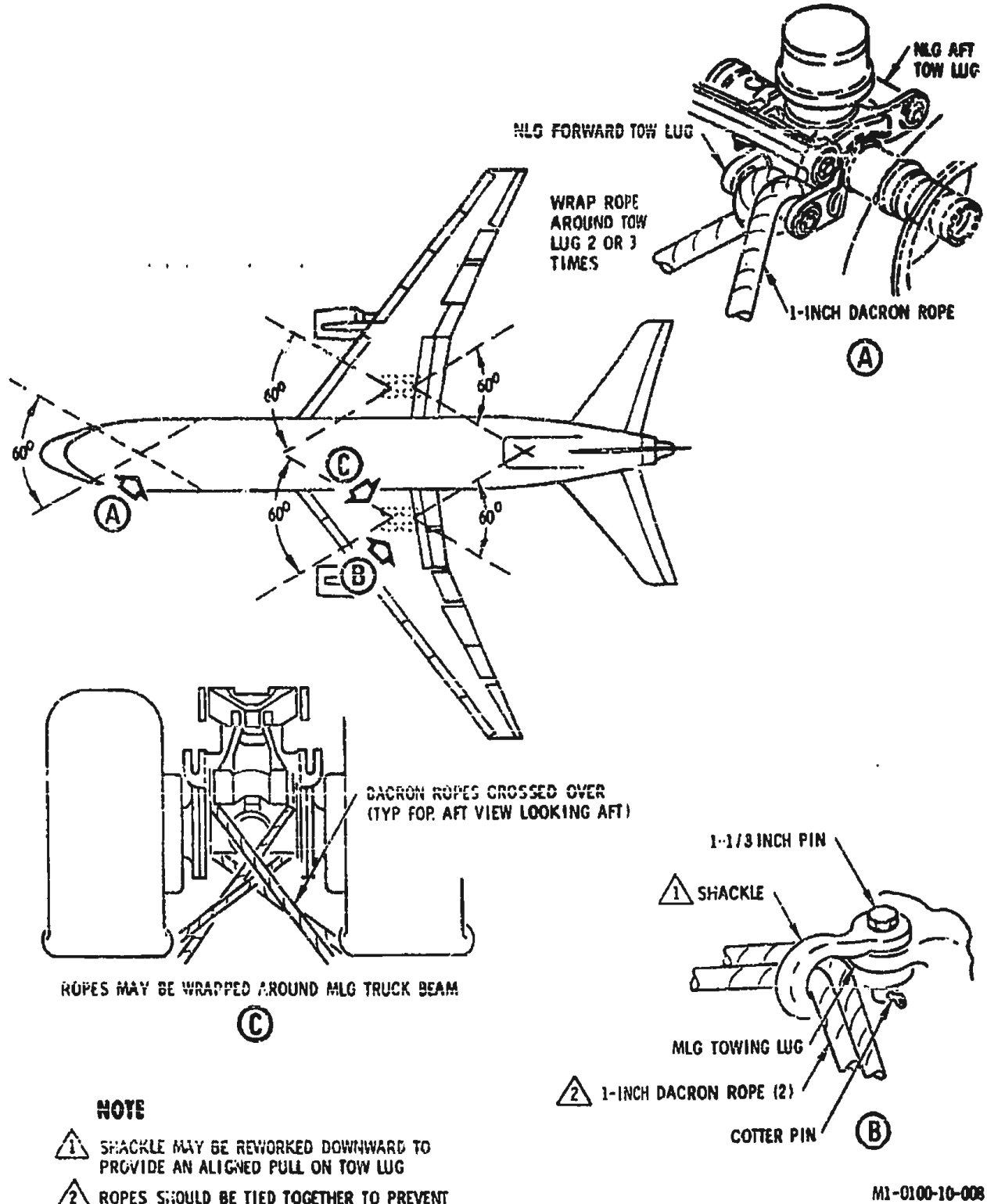
NOTE

1 TO INSTALL WEDGE BLOCKS, APPLY BRAKES FULLY AND PLACE BLOCK IN EACH VALVE STOP GAP. RELEASE BRAKES; BRAKE MUST REMAIN ON.

2 TO REMOVE BLOCKS, APPLY BRAKES FULLY



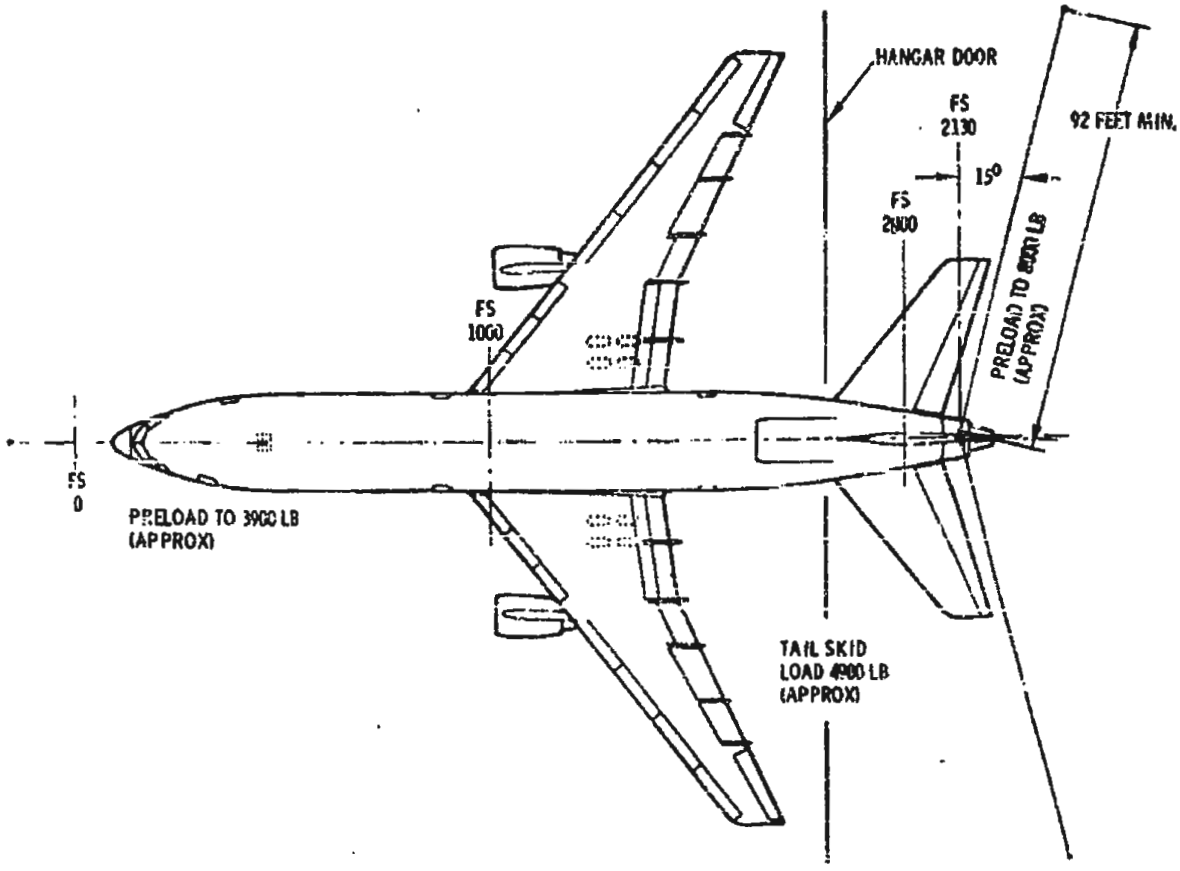
Brake Valve Block Installation
Figure 202



NOTE

1. SHACKLE MAY BE REWORKED DOWNWARD TO PROVIDE AN ALIGNED PULL ON TOW LUG
2. ROPES SHOULD BE TIED TOGETHER TO PREVENT SLIPPING THROUGH SHACKLE

Mooring Using Landing Gear
Figure 203



M1-0000-10-011

R Aircraft Tethering and Preload Locations
R Figure 204

R EFFECTIVITY: ALL
R
001B